Disadvantaged Community Involvement Program

Tulare-Kern Funding Area

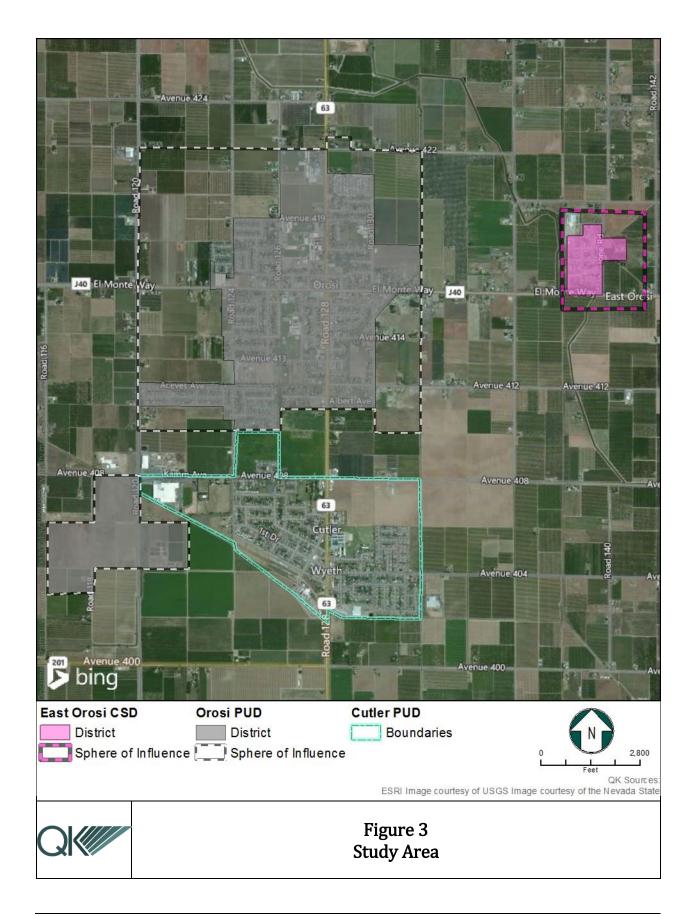
Project Application Form

1.	IRWM Region:							
2.	Funding Area:	Tulare-Kern	Fundin	g Area				
3.	Applicant Name:							
4.	Project Title:							
5.	Requested Grant	Amount:						
6.	Point of Contact: (POC) Informa	tion (na	me, title, organiza	ation, phone, em	nail):		
7.	Type of Funding R	equested (Sel	ect One):				
	IRWM Appli	cation Costs (f	or proje	ects that are ready	for Round One	(2019) IRWM Imp	lementation fund	(gnit
		lopment Activ VM Implemen	-	easibility study, pro unding	eliminary design	, CEQA, etc.) to pr	epare for Round	Two
8.	Is the Applicant id	entified as a [Disadvar	ntaged Community	y (DAC) in the Pr	eliminary Needs A	Assessment?	
	Yes No	If not,	provide	e justification for E	OAC status.			
9.	Does the project a	ddress one o	r more o	of the following iss	sues for a DAC?			
]
Pro	oject Title	Benefits 1		Human Right to Water?	Innovative Technology?	Contribute to regional water self-reliance?	Address AB 1249 Contaminants(s)?	
			ļ				<u> </u>	1
								_
Α	. PROJECT INFOR	MATION						
1.	,							
	outcomes/benefit environmental rev		•	•	• •		, .	
		1011) 01 011101	dottvitte	me project ma	y also melade m	тти аррисации		

2. Provide project map. Include location of project, project benefit and/or service area, and other

applicable information.

Project Application Form (TKFA 2019)





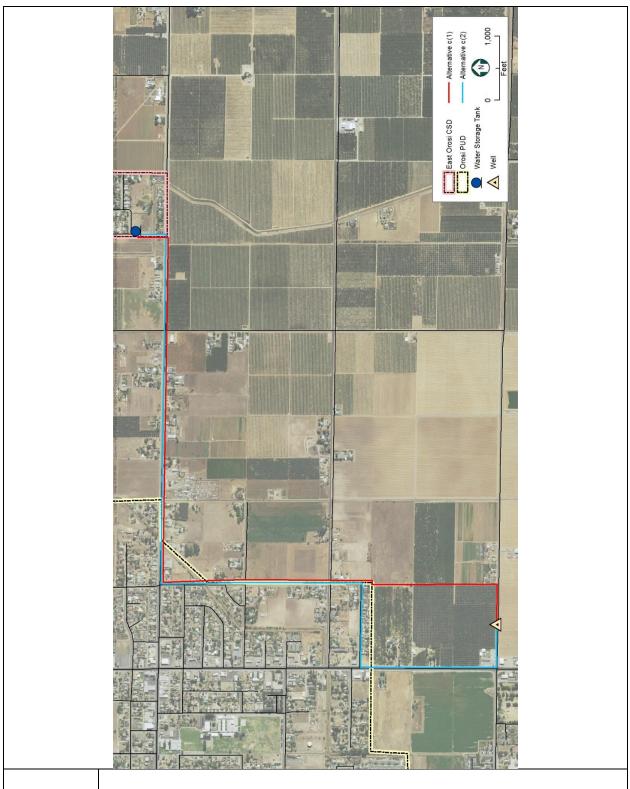




Figure 8
The Project and Project Alternatives

3.	Project Type:		Water Supply or Quality	Sewer or Wastewater
		Other:		
	Select most appli proposed project		t type. If "Other" is selected, please	write in the space provided the
•	If the project will Agency?	Yes		port of the local Groundwater Sustainability Kings River East GSA approved on 7/18/19,
В.	SELECTED ELIGI	BILITY REQ	<u>UIREMENTS</u>	
5.			oond to water management need(s) nt?YesNo	of DACs in the Funding Area, as identified i
_	a. What DAC ne	ed(s) does t	he project address? Identify and exp	olain.
2.	Does the project	t benefit a sr	nall (<10,000 population) DAC?	Yes No
	Community		Population	MHI (include source)
	Does the project p WM Grant Progran Yes No	m Guidelines		tatewide Priorities as defined in the 2016

C. WORK PLAN, BUDGET, and SCHEDULE

th	ork Plan: Provide a brief Project Descri lat is being proposed. The scope must in oject list for future implementation fur	nclude coo	_	•	-		-
2. B	udget: Provide cost estimate by task id			<u> </u>	. Cost s	hare is not req	uired.
	Table		t Devel	opment Budget		(-)	(.1)
	Task	(a) Requested Amou		(b) Cost Share: Non- State Fund Source	Othe	(c) r Fund Source	(d) Total Cost
(1)							
(2)							
(3)							
(4)							
(5)							
	Grand Total						
Ident	tify the source of Other Funds, if applicable.						
	hedule: Include reasonable estimates o lopment Budget.	of the start	and end	d dates for each ta	sk liste	d in Table 1 - I	Project
	Table 2	– Project I	Develo	oment Schedule			
	Task Start Date End Date				Date		
(1)							
(2)							

(3)

(4)

(5)



May 29, 2019

Seamus Guerin Project Manager Self Help Enterprises 8445 W. Elowin Court Visalia, CA 93291

Subject: East Orosi Nitrate Mitigation Project – Revised Proposal for Services for CEQA-Plus Documentation and 30% Conceptual Engineering Plans Preparation

Dear Mr. Guerin:

Quad Knopf, Inc. (dba QK) is pleased to present to you this revised proposal for the requested environmental and engineering services. The scope and fee estimate for services are attached. This proposal has been revised to include preparation of a CEQA-Plus document as part of the environmental services and to add assistance in the preparation of the project completion summary.

We appreciate the opportunity to serve you and the East Orosi Community Services District on this long needed and critical project and, with you, look forward to its completion.

Sincerely,

Steve Brandt, AICP

Project Manager

Ambers Adams

Vice President of Business and Operations

Enclosures: Scope of Services and Fee Estimate

Charge Rate Schedule

cc: Harry Tow, QK

P190114 sb/aa

Scope of Services and Fee Estimate

BACKGROUND

This scope of work continues the effort to provide the unincorporated community of East Orosi with a safe supply of drinking water. A preliminary engineering report (PER) was prepared in June 2017. The PER identified two alternatives that bring water to the District, one with cooperation and coordination with the water system operated by Orosi Public Utilities District. This scope of work would prepare a CEQA document and 30% conceptual engineering plans to cover both alternatives.

PROJECT UNDERSTANDING

This scope of work is based on the following assumptions:

- For future facilities design and construction, agreement between East Orosi Community Services
 District (CSD) and Orosi Public Utilities District (PUD) as to preferred alternative for interconnection
 of their respective water systems will be required and must be approved by the State Water
 Resources Control Board.
- 2. One of the system design alternatives described in the PER will be chosen and utilized as the basis for future facilities design and construction.
- 3. Essential coordination with Orosi PUD staff regarding connection to their facilities and compliance with their design standards will increase 'typical' design costs.
- 4. The facilities to be designed in the future will be limited to those for which the East Orosi CSD will have ownership, essentially those so described in the PER. Any facilities essential to project implementation that are under the ownership of Orosi PUD and require modification or supplementation will be separately designed by engineers employed by Orosi PUD, and such modifications or additions will be constructed under separate contract.
- 5. Although East Orosi CSD will likely be the CEQA lead agency, the environmental effects of the total project (East Orosi CSD and Orosi PUD facilities construction and operation) must be evaluated, and collaboration with Orosi PUD engineering staff and careful review by the Orosi PUD Board must be anticipated.
- 6. It is assumed that the CEQA environmental document can be a mitigated negative declaration.
- 7. The project may receive grant funding from the State Water Resources Control Board (SWRCB). Because it includes funding from a federal source, the project must comply with both federal, National Environmental Policy Act (NEPA) and State, California Environmental Quality Act (CEQA) requirements. The combined federal and State reporting process, which is more efficient and cost effective than preparing separate documents for NEPA and CEQA is known as CEQA-Plus. To meet the NEPA requirements, three special studies must be undertaken to meet federal standards cultural resources, biological resources, and air quality/greenhouse gases. QK and its subcontractors can prepare these studies. The findings of these three documents will be used to provide support to the Cross-Cutter form used for CEQA-Plus documentation, and the assessments and findings will be incorporated into a CEQA Initial Study/Mitigated Negative Declaration.

APPROACH/SCOPE OF SERVICES

TASK 1.0 CEQA-PLUS DOCUMENT PREPARATION

Subtask 1.1 Database/Agency Coordination

The database for CEQA-Plus documentation will be the referenced PER, modifications therein necessitated by 30% conceptual engineering design, and supplemental data provided by Orosi PUD.

Subtask 1.2 Mitigated Negative Declaration Preparation

Based on the data and inter-agency cooperation/coordination assumptions described in the Project Understanding, the Mitigated Negative Declaration will be prepared by QK, and reviewed with Self Help Enterprises and the two Districts' representatives prior to circulation. The new CEQA Guidelines checklist recently released by the Office of Planning and Research (OPR) will be utilized in the document. Technical studies will be prepared to evaluate potential for air quality and greenhouse gas (GHG) emission impacts, biological impacts, and cultural and paleontological resource impacts. Analyses and findings of these technical documents to be prepared for the CEQA-Plus process will be incorporated into the Initial Study

Subtask 1.3 Circulation, Processing, Notifications, and Adoption

QK will be responsible for these essential steps, except for the costs of advertising and publication, and will attend a maximum of three public meetings/hearings.

Deliverables:

 Mitigated Negative Declaration (CEQA-Plus) with appendices for biological study, cultural/paleontological study, and air quality/GHG impact assessment. PDF of administrative draft.
 Four (4) printed copies and PDF of public draft.

TASK 2.0 30% ENGINEERING AND CONSTRUCTION COST ESTIMATE

Subtask 2.1 Design

Utilizing the assumptions described hereinabove, design at the 30% conceptual level will be undertaken and completed for both identified alternatives. Such 30% design will be documented with conceptual engineering drawings, equipment and materials selection and generic technical specifications, and evaluation of quantities at a level adequate for preliminary project cost estimates.

This level of design does not involve surveying since the proposed wellsite has been surveyed, a potential storage tank site would be located on public property (County of Tulare), and preferred pipeline routes are in public rights-of-way. Aerial photographs will be used to create the base plans for the 30% conceptual design.

Subtask 2.2 Engineer's Opinion of Probable Construction Costs

At the completion of 30% design, an engineer's opinion of probable construction costs will be prepared and submitted for review. Such an estimate, at this stage of design is customarily, but not guaranteed, to be within a range of 15% more than final bid costs or 25% less than final bid costs.

Deliverables

- Four (4) copies of 30% Conceptual Engineering Plans showing both identified alternatives (24" x 36")
- Four (4) copies of Equipment and Materials Specifications (1 set including information for both identified alternatives)
- Four (4) copies of Preliminary Engineer's Opinion of Probable Construction Costs for both identified alternatives

TASK 3.0 PROJECT COMPLETION SUMMARY ASSISTANCE

Utilizing the data from the other two tasks, QK will assist with the preparation of the Project Completion Summary. This will include preparation of:

- Description of Project
- Problem being Addressed

- Type of Work Completed (e.g. Feasibility Study, CEQA, etc.)
- Challenges Encountered
- Process to Overcome Challenges
- Recommended Next Steps for the Project, including funding recommendations
- Funding expenditure summary

Deliverables:

• Project Completion Summary

SCHEDULE

We would anticipate starting work on the CEQA document upon Project Authorization, beginning with obtaining agreement on assumptions and scope of services with Orosi PUD engineers for one alternative. Once this is obtained, QK will begin preparation of 30% conceptual engineering plans.

Task	Description	Duration
1.0	CEQA-Plus Document Preparation	Month 1 to Month 5
2.0	30% Engineering and Construction Cost Estimate	Month 2 to Month 6
3.0	Project Completion Summary Assistance	Month 5 to Month 6
	Total Duration	6 Months

FEE ESTIMATE

Basis of Fees

Because the scope of work for Tasks 1.0 and 2.0 is reasonably well defined, these will be charged as a fixed fee. Because the amount of effort to be requested in Task 3.0 is not known at this time, this task will be charged on a time and materials basis per the attached 2019 Charge Rate Schedule. If your funding requires that all work be billed on time and materials, it will be billed per the attached 2019 Charge Rate Schedule.

Task	Description	Fee Type	Fee Amount
1.0	CEQA-Plus Document Preparation	Fixed Fee	\$65,000
2.0	30% Engineering and Construction Cost Estimate	Fixed Fee	\$87,144
3.0	Project Completion Summary Assistance	Time and Materials	\$7,000
		Total Estimated Fee	\$159,144

Notes

- 1. Expenses for reproduction, mailing, mileage, etc. are billed separately per our attached Charge Rate Schedule.
- 2. All time-and-materials fees will be invoiced monthly based on the level of effort in terms of hours relative to our Charge Rate
- 3. When a Task is set on a time-and-materials fee basis, it signifies that it is not possible to accurately predict the amount of work effort required typical of on-call type services. QK will work with the client to set expectations where applicable.
- 4. Tasks billed by fixed fees will be invoiced monthly based on the percentage of work completed.
- 5. Additional Services requested in writing and approved by the client will be provided on a time-and-materials basis.

AUTHORIZATION

In order to authorize services described herein, please contact us with invoicing information so that we may prepare a contract for signature.

EXCLUSIONS AND ASSUMPTIONS

The following services are excluded from this fee:

- Topographic surveying and/or any other surveying services
- Bid documents
- Design plans beyond the 30% conceptual plan mentioned in Subtask 2.1
- Utility coordination
- Caltrans coordination and/or processing of 30% conceptual design plans
- Advertising for or publication of public meetings/hearings
- Additional meetings above the three noted in Subtask 1.3
- Technical environmental studies not specifically described in the scope of work

Should additional services be required, they can be provided by QK on a time and materials basis with written approval from the client or under a future, separate task order.

Any costs necessitated by State agency demand or procedures not normally required for environmental documentation at the Mitigated Negative Declaration level of CEQA documentation will be additional to the fee for Task 1.0 and would be billed on a time-and-materials basis.

Any environmental analysis involving NEPA is included only if a two-sheet categorical exemption 'check-off' sheet is required and will not include on-site biological assessments. Any NEPA documentation or requirements in excess of that will be billed on a time-and-materials basis.

D. OTHER PROJECT INFORMATION

1. Does the proposed project benefit multiple DACs?YesNo	
If Yes, provide a description of the impacts to the various DACs.	
2. Does the project address a contaminant listed in AB 1249?YesNo If yes, provide a description of how the project helps address the contamination.	
 Does the project improve the provision of safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes, consistent with AB 685 (Human Right to Water)?YesNo If yes, please describe. 	

E. **ENVIRONMENTAL**

1. Please fill out the Table below, if applicable:

	Table 3 – CEQA Timeline				
CEQA STEP	COMPLETE? (Y/N)	ESTIMATED DATE TO COMPLETE			
Initial Study					
Lead Agency ()					
Notice of Preparation					
Draft EIR/MND/ND					
Public Review					
Final EIR/MND/ND					
Adoption of Final EIR/MND/ND					
Notice of Determination					

a.	If additional explanation or justification of the timeline is needed, please describe below (optional).
F.	CONSULTANT SELECTION
	oes the Applicant have a District Engineer or other Engineering Consultant with history working on the design or valuation of its facilities, which is preferred to perform the scope of work identified herein?
	If yes, provide contact information (Name, Title, Organization, Phone, Email)
T a	lote: The preferred consultant, if noted, will be contacted regarding this project. If the consultant and the County of ulare are able to come to agreement, a contract between the County and consultant may be initiated. While pplicant preferences will be taken into account, the County of Tulare does not commit to retaining the services of the preferred consultant.

2. If the Applicant does not have a preferred consultant, a consultant may be recommended by the respective IRWM, or work may be conducted by the Project Team. Any recommended consultants would require preapproval from the County of Tulare, and would be required to enter into a contract with the County of Tulare.

Kings River East Groundwater Sustainability Agency Regular Board Meeting Agenda

City of Dinuba – Council Chambers 405 East El Monte Way, Dinuba, CA 93618

July 18, 2019 2:00 p.m.

GM Chad Wegley requested an addition to the agenda. Mr. Wegley requested that the the KREGSA Board also consider a support letter for the EOCSD Project under agenda item 8.3. The Board accepted this request and approved a support letter for the EOCSD project.

- 1. Call to Order
- 2. Pledge of Allegiance
- 3. Potential Conflicts of Interest
 - 3.1. Any Director who has potential conflict of interest may now identify the Agenda item and recuse himself or herself from discussing and voting on the matter (FPPC § 87,105).
- 4. Public Comment
 - 4.1. Public will be given up to three minutes (3 min) to address the Board of Directors on any item not on the agenda but within the subject matter of the Board's jurisdiction. Board of Directors is prohibited from taking action on public comments and as appropriate, matters raised during this period may be referred to appropriate parties or added to the agenda of an upcoming Board meeting (Gov. Code § 54954.3(a)).
- 5. Communications Review and Consider for Action
- 6. Board of Director Reports Discuss and Consider for Action
 - 6.1. Report(s) by Director(s) on event(s) attended during the prior month
- 7. Consent Calendar Items All Consent Calendar items are considered routine and will be enacted in one motion. There will be no separate discussion of these matters, unless a request is made in which event the item will be removed from the Consent Calendar to be discussed and voted upon by a separate action.
 - 7.1. Payables Review and approve payment of June 2019 invoices (see Insert 7.1)
 - 7.2. <u>Board Meeting Minutes</u> Review and approve minutes of June 20, 2019 regular Board meeting (see Insert 7.2)
- 8. Other Board Items Take Action
 - 8.1. Treasurer's Statement Review and approve June 2019 Treasurer's statement (see Insert 8.1)
 - 8.2. Grant Reimbursements Review and discuss status of reimbursement from grants.
 - 8.3. <u>Letter of Support</u> Review and consider issuing letter of support for the Sultana and Munson Storm Water Project.
- 9. Groundwater Sustainability Activities Review for Possible Action

Kings River East Groundwater Sustainability Agency Regular Board Meeting Agenda

- 9.1. GSA Invoices Provide an update on collections and typical questions from landowners
- 9.2. Groundwater Sustainability Plan (GSP) Update on the GSP
- 10. Legal Issues Review for Possible Action
 - 10.1. Attorney Legal Update on Matters Affecting the GSA and Legislation
- 11. Future Agenda Item(s) No Action
- 12. Adjournment

Notes:

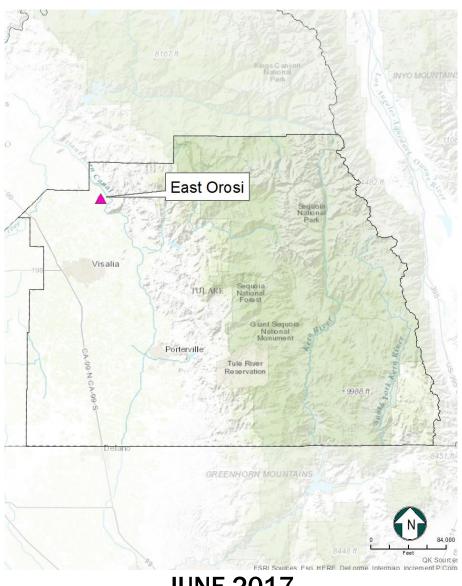
- 1. In compliance with the Americans with Disabilities Act of 1990, requests for special assistance to attend or participate in this meeting should be made to the City of Dinuba (559-591-5900) at least 48 hours in advance of the public meeting to enable the City to make reasonable accommodations.
- 2. Public records relating to an agenda item are available for public review, after posting of the agenda; at 289 North L. Street, Dinuba, CA 93618 during regular business hours.

AFFIDAVIT OF POSITING

I, Marc Limas, on behalf of the Kings River East Groundwater copy of the foregoing agenda in the lobby of the City of Dinuba	at 405 East El Monte Way, Dinuba, CA 93618, at
least severity - two (72) hours prior to the meeting, in accorda	nce with Govt. Code § 54954.2(a) July <u>15, 2019</u>
Marc Limas	

PRELIMINARY ENGINEERING REPORT

EAST OROSI COMMUNITY SERVICES DISTRICT WATER SUPPLY AND INFRASTRUCTURE



JUNE 2017



PRELIMINARY ENGINEERING REPORT

WATER SUPPLY AND INFRASTRUCTURE

Prepared for:

East Orosi Community Services District 41842 Ione Road Orosi, CA 93647

Contact Person: Carmen Moreno, President, Board of Directors Phone: (559) 528-2726

> Self-Help Enterprises 8445 West Elowin Court Visalia, CA 93291

Contact Person: Lucia Reyes, Community Development Specialist

Phone: (559) 651-1000

Consultant:



901 East Main Street Visalia, CA 93292 Contact: Harry A. Tow Phone: (559) 733-0440

Self-Help Enterprises

Paul Boyer, Community Development Director Juan Cano, Community Development Specialist Lucia Reyes, Community Development Specialist State Water Resources Control Board Brenda Pauli, Sanitary Engineer Chad Fischer, Tulare District Engineer

East Orosi Community Services District Board of Directors

Carmen Moreno, President Katie Icho, Vice-President Shanna Chavez, Treasurer Lucy Rodriguez, Secretary

June 2017

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- Appendix C SDWRCB, DDW Compliance Order NO. 03-24-15R-001; East Orosi June 2016 **Consumer Confidence Report**
- Appendix D LAFCO Orosi Public Utilities District Municipal Services Review
- Appendix E Excerpts, 2014-2015 Audit, East Orosi Community Services District
- Appendix F Geohydrologist Report, East Orosi Community Services District Test Well, Avenue 408, Tulare County
- Appendix G LAFCO Districts Consolidation Constraints/Procedures/Restrictions
- Appendix H Excerpts, North Tulare County Regional Surface Water Treatment Plant Study, 2014
- Appendix I Rate Study for East Orosi, excerpt from November 23, 2016 Northern Tulare County Evaluation of Governance Structures and Affordability, prepared by **Rural Community Assistance Corporation**

SECTION 1 - INTRODUCTION

1.1 - Background

The community of East Orosi is located in the northeast corner of the San Joaquin Valley portion of Tulare County (Figure 1). It is depicted on Figure 2. The 2010 U.S. Census listed 495 residents in 105 dwelling units, with 41% of the households with median incomes below the Federal poverty line. (Other population estimates have ranged from 560¹ residents to 700² residents.) There has been little change in the community since the census. The 2011-15 U.S. Census Bureau American Community Survey 5-Year Estimate states that the Community's annual median household income was \$34,896, which is 56% of the statewide median household income, thereby qualifying East Orosi as a Severely Disadvantaged Community.

Infrastructure responsibility is divided between the County of Tulare and the East Orosi Community Services District. The County is responsible for street maintenance and storm drainage, the District for water and wastewater infrastructure. Wastewater treatment is provided by a District contract with the Cutler-Orosi Joint Powers Wastewater Authority. Orosi is located approximately one mile west of East Orosi.

East Orosi was, until January 2014, served by two District wells. These wells provided drinking water with non-compliant (nitrate) water. An attempt was made to rehabilitate one of the wells to correct the nitrate problem; difficulties in carrying out the well rehabilitation rendered the well unusable. The community is now served by only the remaining well, with its nitrate levels in the order of 50 ppm. The State Water Resources Control Board Division of Drinking Water (SWRCB, DDW) issued in November 2016, a Compliance Order requiring the District to bring the District's water system into compliance with the nitrate MCL of less than 45 ppm by December 1, 2018 (Appendix C).

The community is currently being provided with bottled drinking water by the SWRCB utilizing funding from the Proposition 84 Safe Drinking Water Emergency Funding Program and Cleanup and Abatement Account – Interim Emergency Bottled Water Project. The CAA grant agreement between the East Orosi CSD and the State is scheduled to expire, and Proposition 84, expires in October 2017. The balance of District residents' water needs are being met with water from the remaining, non-compliant, well source.

1.2 - Purpose

It is the purpose of this Report to identify and evaluate the relative feasibility and costs of alternative solutions to East Orosi's water supply needs, and to enable implementation of the best solution.

¹ Appendix A, Water Usage and Calculations of Design Alternatives Costs

² Appendix B, Tulare County LAFCO Municipal Services Review, East Orosi CSD, page 5.2

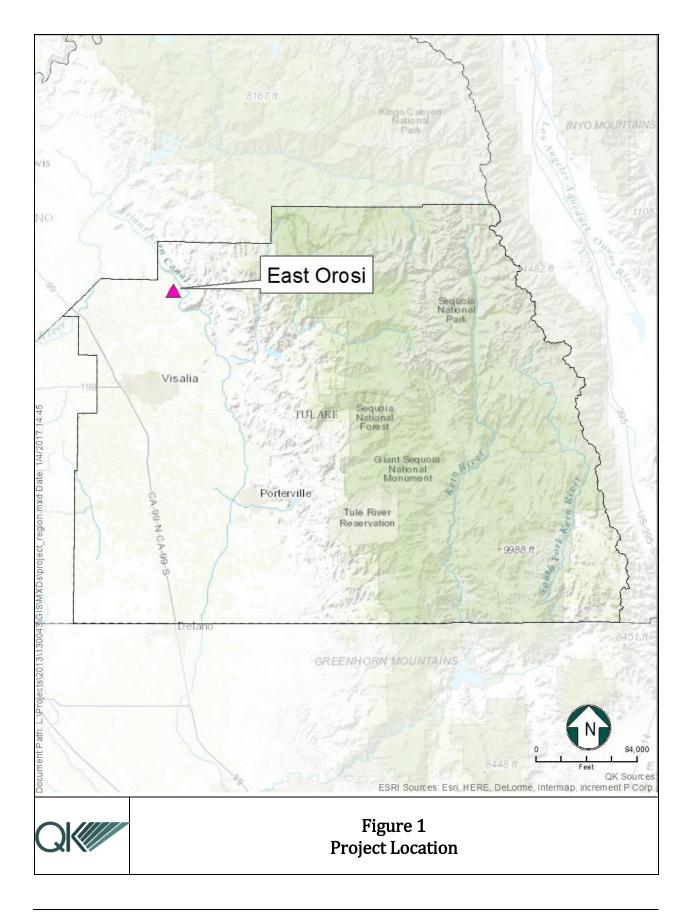






Figure 2 East Orosi

1.3 - Study Area

The study area is portrayed on Figure 3. It includes the East Orosi Community Services District, the Orosi Public Utilities District, the location of a proposed supply well, and the rural Tulare County area surrounding the two Districts.

The proposed supply well is located approximately 2 miles southwest of East Orosi. The selection of this wellsite was determined, after exhaustive study, as one from which an adequate and quality-compliant drinking water supply for East Orosi could be assured. A test well which has been completed on the site confirmed the likelihood that a production well thereon could provide a compliant water supply in an amount sufficient to both meet East Orosi's needs and, if desired, to provide a supplemental water source for Orosi.

1.4 - Key Agencies/Organizations

These agencies include:

- The project applicant, the East Orosi Community Services District (EOCSD). The District boundaries and the community are portrayed on Figures 4 and 5.
- The Orosi Public Utility District (OPUD) with an estimated population of 10,000. The District boundaries are portrayed on Figure 6.
- The State Water Resources Control Board Division of Drinking Water (SWRCB, DDW), a regulatory and funding agency.
- The Tulare County Local Agency Formation Commission (LAFCO) which coordinates and regulates establishment, annexation to, and consolidation of public agencies in the County.

The District is being assisted for this Project by Self Help Enterprises (SHE) a San Joaquin Valley/Visalia-based private non-profit affordable housing and community development corporation which aids local limited-income agencies in securing funding for essential infrastructure facilities.

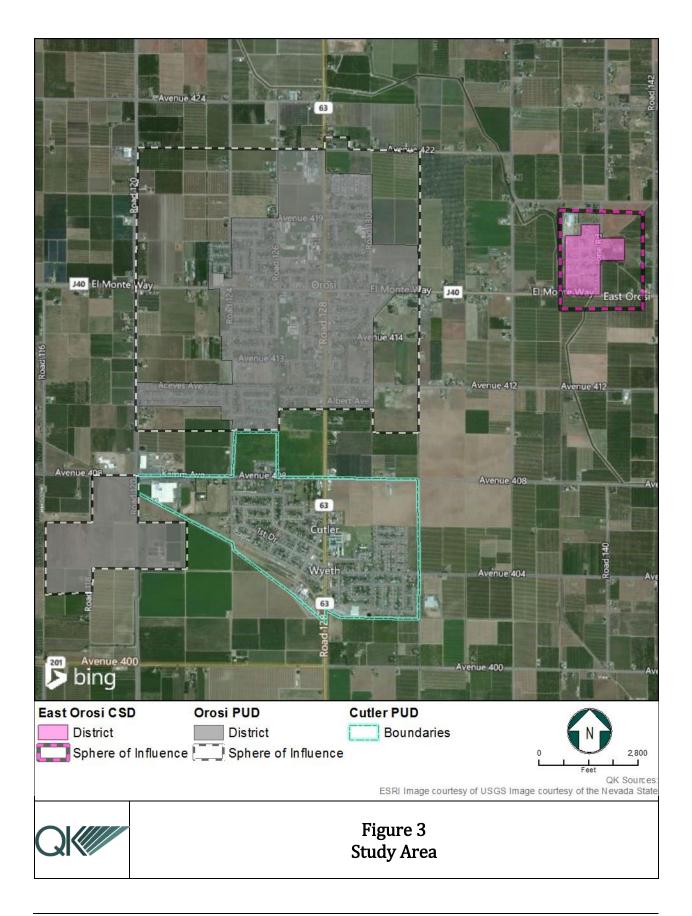
1.5 - Funding

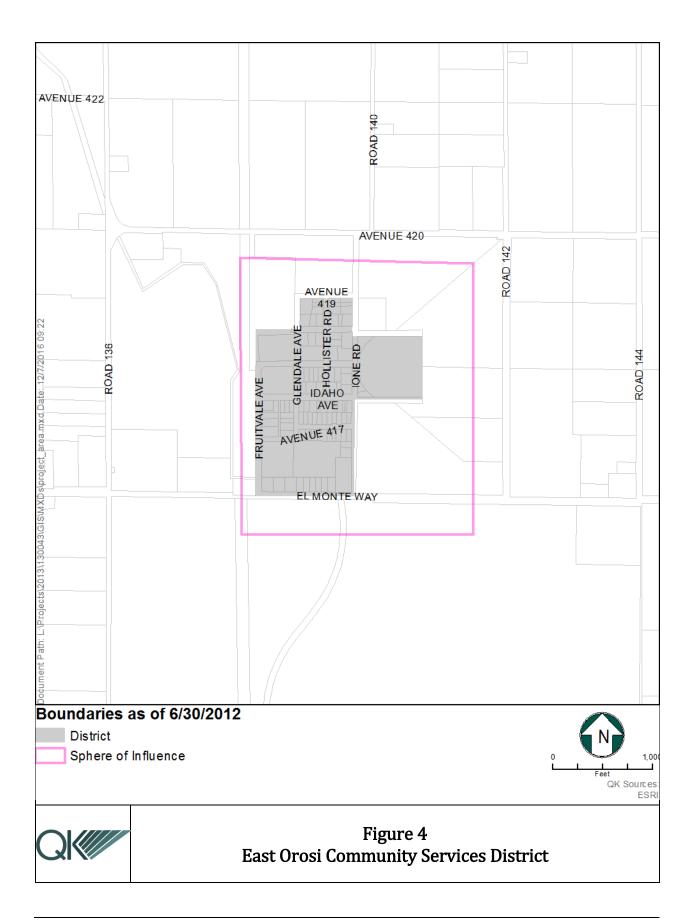
The EOCSD has no financial resources, or feasible tax or service fee-based funding ability, to improve or replace its water supply and distribution system (Appendix E).

The construction funding for this Project is to be applied for by the District from the Drinking Water State Revolving Fund/Proposition 1 program.

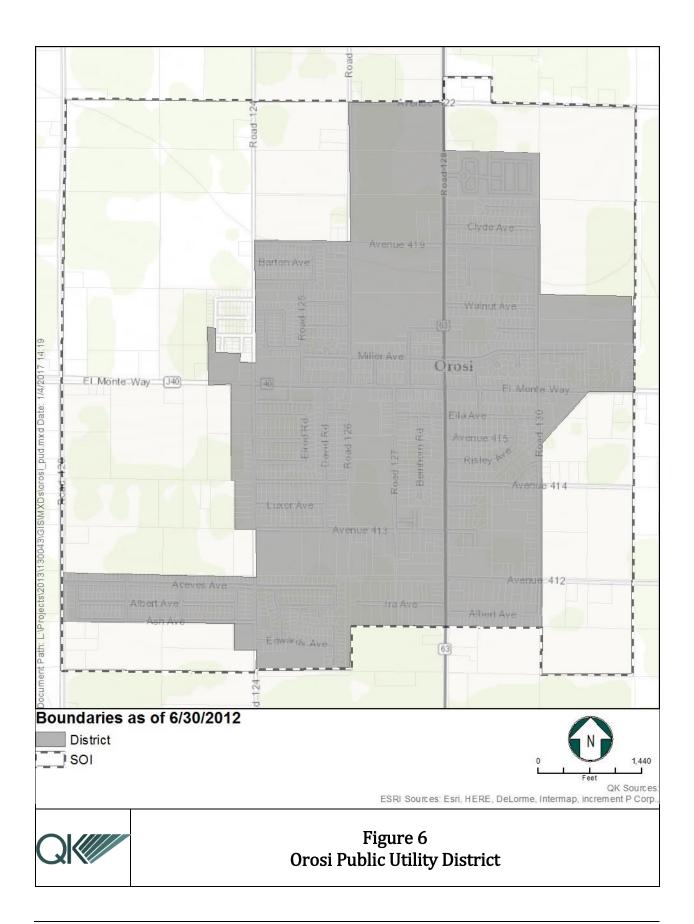
1.6 - Schedule

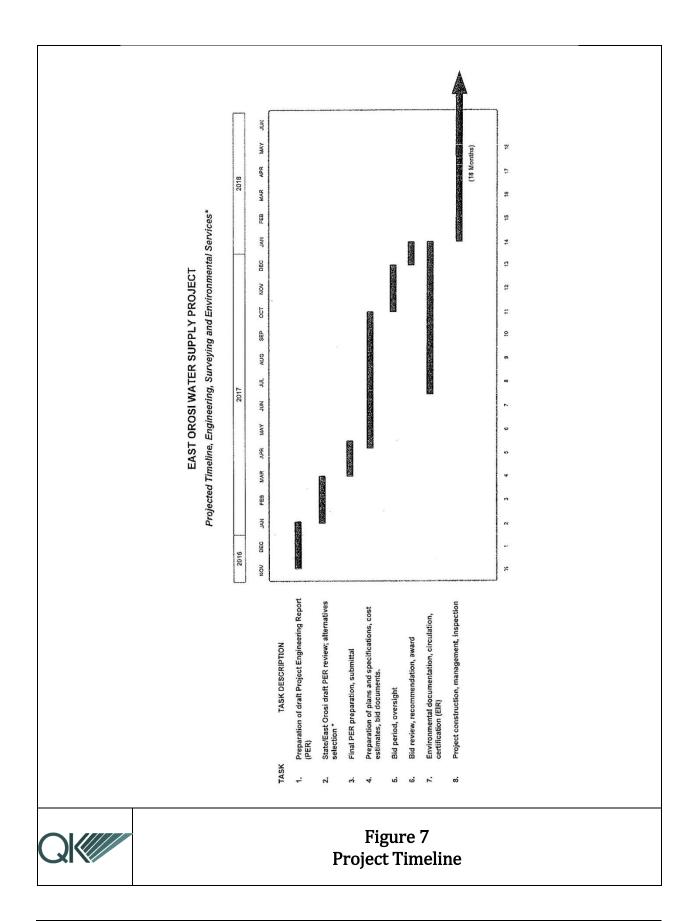
The State requested that this PER be completed in draft format by January 15, 2017. The attached timeline (Figure 7) illustrates desired project alternatives selection, design, bid document, bid/bid award and construction time projections.











SECTION 2 - POTENTIAL PROJECT PARTICIPANTS

2.1 - Agencies

Self Help Enterprises has assisted the East Orosi Community Services District (EOCSD) with project funding and project management.

Critical participants in the project are the following:

2.1.1 - THE STATE WATER RESOURCES CONTROL BOARD, DIVISION OF DRINKING WATER (SWRCB, DDW)

The Division is responsible for assurance of compliance by public water systems with primary and secondary drinking water standards. It is, additionally, responsible for the evaluation, and implementation, of State funding for public water system facilities which will enable entities operating such facilities to comply with such standards.

Appendix C to this report contains the Compliance Order issued on November 9, 2015, from SWRCB to the EOCSD requiring compliance by December 1, 2018 with State Maximum Contaminant Levels (MCLs) for drinking water nitrates in the District water system, and a copy of the District's State-required June 2016, Consumer Confidence Report.

2.1.2 - THE EAST OROSI COMMUNITY SERVICES DISTRICT (EOCSD)

The District operates and maintains both the water system and the wastewater facilities serving the community of East Orosi.

Information regarding the community and the water system is contained in Section 1.1 of this report and in Appendices to the report.

Appendix B is a Tulare County Local Agency Formation Commission (LAFCO) Municipal Services Review, 2006, and Appendix E contains excerpts from the District's 2014-2015 Audit, EOCSD Updated.

Other information regarding the District and its water system:

- The estimates of population served by the water system range from 386 to 700 people (see Section 1.1). The population used as a basis for this report is 560 residents, based on metered total water usage.
- The District employs no full-time staff; operations and maintenance are provided by a private contractor.
- Current water rates are \$17.15 per month per system-connected service. There are old, manual-read, meters installed on a mix of 3/4" and 1", poly-pipe, house connections. They are not read or routinely calibrated, and as such are not considered accurate, so are not used as a basis for billings.

- The District is now served by a single well, with 150 gpm capacity, with hydropneumatic tank and hypochlorination facilities.
 Until 2014, it was also served by a second well, with 150 gpm capacity.
 That well is now out of service following a failed rehabilitation program.
- The District has no in-community water storage facilities. It has approximately 8,900 feet of 4" and 6" PVC pipe, 101 service connections of poly-pipe with meters and meter boxes, and 11 fire hydrants (4 of which are not in full compliance with current California Fire Code location requirements).
- Reported water production in 2013-2014 was approximately 3,382,000 gallons.
- Audited year 2015 water system expenditures were \$54,000.
- The District office is a small travel trailer.
- There are no other currently reported water quality problems.

2.1.3 - Orosi Public Utility District (OPUD)

The only data available for the preparation of this report is the 2006 Orosi LAFCO Municipal Services Review (MSR) in Appendix D of this report, and OPUD annual well production data from Draft 2014 North Tulare County Surface Water Treatment Plant Study excerpts in Appendix H to this report.

The current population of the 690-acre District is in the order of 10,000 people. (The 2010 census indicated a population of 8,770 people.) The Appendix H excerpts described 2012 water usage in the District as approximately 2,200,000 gallons per day produced by 5 in-District wells.

OPUD opposition to consideration of an Orosi/East Orosi District consolidation alternative discussed in this report has rendered the acquisition of further data regarding the OPUD impractical.

2.1.4 - Tulare County Local Agency Formation Commission (LAFCO)

The Commission's duties and legal obligations and constraints regarding consolidation of Districts are described and defined in Appendix G to this report. In brief, consolidation of Districts in the County may be initiated by applicants to LAFCO by the Districts involved or may be initiated, after a study, by the Commission.

The Commission is governed by five representatives, two of which are appointed by the Board of Supervisors, two by a committee of City representatives, and the fifth by the four County/City appointees.

SECTION 3 - THE PROJECT AND PROJECT ALTERNATIVES

3.1 - Project Purpose

In reiteration of the Project purpose as stated in Section 1: It is the purpose of this Report to identify and evaluate the relative feasibility and costs of alternative solutions to East Orosi's water supply needs, and to enable implementation of the best solution.

The community has for some years suffered from service by a water supply system which has not been in compliance with health-related State drinking water standards, and from less than adequate financial and staffing resources to properly operate and maintain its water system. Since January 2014, it has not had a backup water supply because of the failure of one of its two wells. The fulfillment of the project purpose will resolve these concerns.

3.2 - Issues

Financial

The adequacy and continued availability of Federal and State funding is essential to implementation of the Project purpose. There is no possibility of local financing; the District's residents cannot fund the needed facilities. There is no possibility of funding by the County of Tulare or of private, eleemosynary, funding.

Governmental

The participation, at some alternative level, of the OPUD (because of adjacency and financial and operational capability) in implementation of adequate EOCSD water supply facilities would be of value. Absent such participation, pipeline connection costs to the new well would be increased, storage facilities in East Orosi would be required, and there would be no "backup" drinking water-compliant water supply.

• Operation and Maintenance

Almost equally important, it will be financially difficult for East Orosi to operate and maintain upgraded project facilities. They must be operated and maintained by trained and licensed personnel, to read meters, bill for services, operate and repair facilities, maintain financial stability and test for and submit records of system compliance.

It is conceivable that EOCSD could continue to contract for management, operating and maintenance services with a private company. However, the expense of such contractual services would probably be greater than the equitable expense-sharing cost of incremental services by OPUD. Orosi, with a services scenario, could benefit from the backup available from a high-volume Project well and an Orosi-system connector; a lower-cost, low-volume well would be sufficient for East Orosi's needs.

EOCSD is too small and possesses limited financial resources to provide a reliable and safe water supply to its citizens absent long-term financial assistance or, most feasibly, a contractual or consolidation relationship with OPUD.

• Timing

East Orosi, at this juncture, remains served by only one well which produces non-compliant (nitrates) water. It has no storage facilities. Residents are being provided bottled water. It is evident that accelerating Project completion is a critical issue. Drought-related delays in well construction, prolonged State/Orosi negotiations or other delays would be a public health concern.

Funding shortages or modifications with a changed Federal administration could, with excessive project delays, also be a project timing issue, given potential resulting additional claims upon State funding programs.

3.3 - The Project

The Project has four components – a well which will supply drinking water-compliant water, a piping connection from that well to East Orosi with any required water storage facilities, replacement of any inadequate segments of the East Orosi distribution system used to implement this project and the installation of remote-read meters on each service connection.

3.3.1 - THE WELL

A comprehensive review of alternative sites for the Project well was undertaken by a hydrogeologist and engineers familiar with the East Orosi vicinity. Most of the area immediately adjacent to East Orosi was identified as underlain by aquifers with nitrate or DBCP contaminants. It was determined that the only, albeit distant and limited size, area from which it was likely that drinking water-compliant water could be produced was in a narrow geographic band southwest of the community. A tentatively selected, and now test-well confirmed, wellsite east of the northeast corner of the intersection of State Route 43 and Avenue 408 (Figure 8) has been provisionally acquired (optioned).

The wellsite is located on property owned by the Cutler-Orosi Joint Unified School District. It is located on the north side of Avenue 408 and is of State regulation-compliant size, 108 ft. by 122 ft. Between the wellsite and State Highway 43 the School District has a well supply for its onsite offices which supplies these facilities with compliant drinking water including nitrate levels less than 45 ppm.

There are no other major wells adjacent to the wellsite. Approximately 700 to 1,300 feet east of the site there is a cluster of eight rural homes fronting on Avenue 408. These homes are currently supplied with water from individual wells.

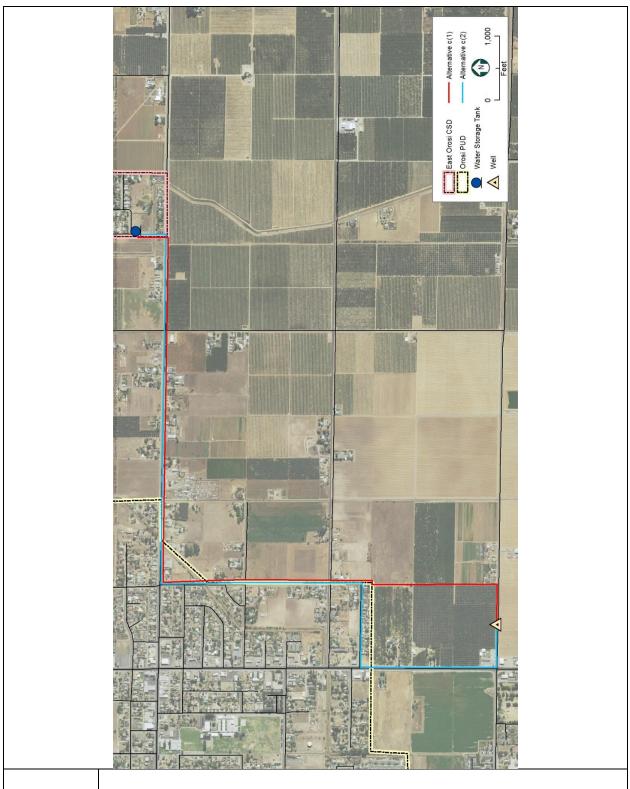




Figure 8
The Project and Project Alternatives

In October 2016, a test well was completed on the selected site. A fully panoply of State-required potential contaminant tests was run on the (550 foot) test well. The hydrogeologist has reported that a properly-designed production well at the site could produce fully compliant drinking water at a maximum rate of 1,200 to 1,400 gallons per minute, significantly exceeding the supply needed by EOCSD (see Appendix F). It is proposed that the well to be completed under this project be designed to produce, when required, the full variable frequency drive (VFD)-controlled capacity range identified by the hydrogeologist so that its production could be shared, if desired and agreed, by the OPUD.

It is proposed, as components of well design, to provide a hydropneumatic tank, chlorination facilities, a well discharge meter, VFD, site paving and fencing, plus a 6" line easterly of the Road 130 alignment to serve the eight rural residences, and optional metered service connections thereto. (Such connections should be provided to mitigate possible Project-related drawdown impact on the individual-residence wells.) Well pump-curve design should reflect both East Orosi-required flows and Orosi flows if well usage as an Orosi backup is desired.

3.3.2 - WATER STORAGE FACILITIES

If East Orosi is to operate as an independent water supply system without Orosi interconnection and supply backup, it will be necessary to construct, operate and maintain a storage tank in or near the community.

The apparent best location for such a storage facility is the County stormwater basin at the northeast corner of Avenue 416 and Fruitvale Road (Figure 9). With County cooperation, existing stormwater capacity could be maintained by constructing a ground-level pad at the Fruitvale Road side of the basin utilizing fill material from the basin. It is preliminarily estimated that a 250,000-gallon tank could provide 24 hours of maximum day demand (162 gpm) plus residential fireflow (1 hour x 500 gpm).

If Orosi interconnection and supply backup is made available there is no significant need for in-Orosi storage; EOCSD operations loss would only occur as a result of (unlikely) Avenue 416 pipeline rupture or areawide loss of power. This PER can make, in the absence of data from OPUD, no calculation as to Orosi storage, booster pump, or pipeline needs to provide the backup water supply and incremental storage facilities to accommodate East Orosi storage/backup supply needs. However, it is understood that during initial discussions between OPUD and the State an order-of-magnitude cost of \$2,000,000 for such facilities was mentioned.

3.3.3 - DISTRIBUTION SYSTEM

In 1984, EOCSD's distribution system was upgraded, with the installation of 4" and 6" PVC piping, and interconnection to the two then-existing wells. (Prints of the system as upgraded are on file at QK's office.)

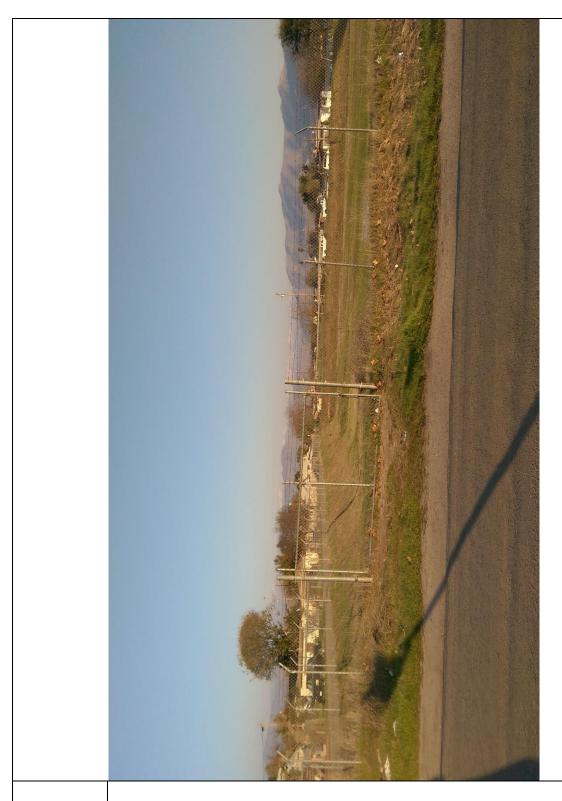




Figure 9 Storage Tank Location

There are, at present, approximately 8,900 feet of in-community and well-connection piping, with related valving and fire hydrants. Information provided by the District, through Self-Help Enterprises, and by the private operations/maintenance company which is employed by the District, indicates that the system is experiencing no excessive maintenance or evident deterioration or delivery pressure problems.

Based solely upon that preliminary information, it has been estimated that no more than 500 feet of the system piping may need to be repaired or augmented.

3.3.4 - **METERING**

There are a reported 101 connections from the distribution system to residences. All are metered, but not with modern remote read and recording meters. There has been no continuing meter maintenance or accuracy-check program. The meters are not considered accurate and as such have not been utilized as a basis for monthly billing.

It is proposed that the existing meters be replaced with remote-read equipment which is fully compatible with Orosi's metering to facilitate either District consolidation or an agreed meter maintenance/meter reading contractual service by Orosi. Such equipment will require new, right-of-way-located meter boxes. It is assumed that existing service connections can be retained.

3.4 - Project Alternatives

There are two physical alternatives for piping connection from the well to East Orosi (see Figure 8). They are:

- C-1 Approximately 12,000 feet of 8" pipeline, in private easement right-of-way and public roads, from the well to the East Orosi distribution system and to a storage tank at the southwest border of EOCSD.
- C-2 Approximately 13,000 feet of 12" and 10" pipeline, to the EOCSD distribution system.

In brief clarification of these pictured alternatives:

- (C-1) Cost savings in the order of \$380,000 may be effected by "wheeling", with Orosi assent, through existing 8" Orosi pipeline on Road 130 and Avenue 416.
- (C-2) This alternative includes 12" pipe on State Route 63 to permit well interconnection to the Orosi system. 10" piping could be utilized from that point to EOCSD.

These alternatives become most feasible with mutual-benefit cooperation between OPUD and EOCSD. Feasible levels of such cooperation which have been selected for analysis include:

- C-1(a) Direct connection from the wellsite (east along Avenue 408 to a Road 130 alignment and north to Avenue 416) with an in-community storage tank.
- C-1(b) Connection through Orosi (along the same alignment, Road 130, and north to Avenue 416) with a portion of the connection utilizing existing Orosi pipeline, with an East Orosi/Orosi services contract for well and pipeline connection, its East Orosi distribution system and meter maintenance/operation, and meter reading.
- C-2(a) Connection through Orosi (west on 408, north on SR 63, east on Albert Avenue, north on Road 130, east on Avenue 416) with the same service agreement as Alternative C-1(b), with a backup water supply from Orosi, and availability of East Orosi well's excess capacity to Orosi.
- C-2(b) The same connection as Alternative C-2(a) with consolidation of the two Districts, thus effecting the service agreement-relationship plus billing, full financial responsibilities, and permanent responsibility for water supply backup.

3.5 - Facilities Cost Comparisons

The facilities costs of the Project and the Project Alternatives are estimated, based upon currently available data, to be:

•	Well/well head/well adjacent equipment and piping: (including hydropneumatics tank, meter)	\$850,000
•	Distribution system repair/augmentation:	\$150,000
•	Meter and meter box replacement:	\$150,000
	(C-1) Direct connection	
	• Pipeline:	\$1,426,000
	• Storage tank (including booster pump):	\$550,000
	Total project, with C-1 alternative:	\$3,126,000
	(C-2) Orosi – East Orosi	
	• Pipeline:	\$1,828,000
	Total project, with C-2 alternative:	\$2,978,000
	• Contingencies @ 20%, Alternate C-1 (resurfacing, soils testing, fire hydrants, etc.)	\$625,000
	• Contingencies @ 20%, Alternate C-2	

(resurfacing, soils testing, fire hydrants, etc.)	\$596,000
Subtotal, construction, Alternate C-1	\$3,751,000
Subtotal, construction, Alternate C-2	\$3,574,000
• Engineering, @ 6 ½%	
Alternative C-1	\$244,000
Alternative C-2	\$232,000
• Surveying (design, rights-of-way)	\$30,000
Appraisals, rights-of-way, legal fees	\$100,000 (C-1only)
• Environmental analysis (mitigated negative declaration)	\$55,000
• Construction services (project management, client representation, construction observation) (12%)	
Alternative C-1	\$450,000
Alternative C-2	\$429,000
Total costs, Alternative C-1	\$4,630,000
Total costs, Alternative C-2	\$4,320,000

These costs do not include, for Alternative (C-2), any storage/electrical, pressure pump costs which may be required for OPUD provision of a "back-up" water supply.

As a further caveat, these cost comparisons have utilized conservative design assumptions including, for example, the assumption that both existing residential services and some rights-of-way conditions may result in County demands that pavement be replaced rather than trench-patched (Figure 10).

In essence, the Project with either Alternative is, within the accuracy of these pre-design estimates, essentially the same cost.

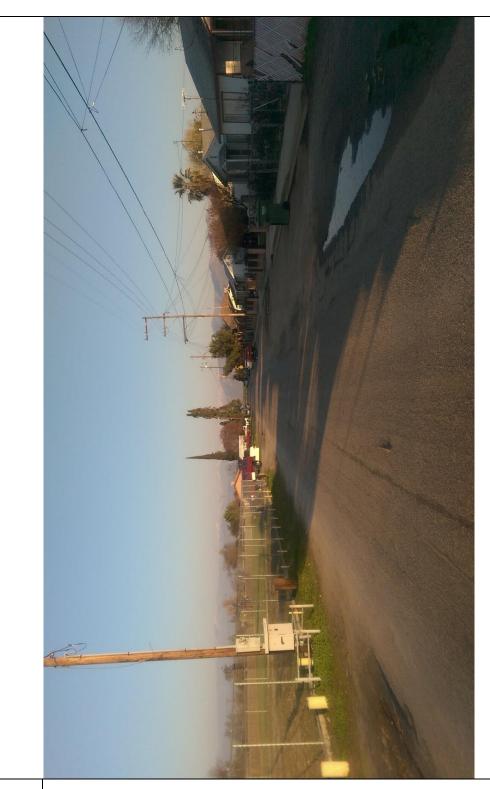




Figure 10 Rights-of-Way, Typical (Albert Avenue)

SECTION 4 - ALTERNATIVES RATINGS

4.1 - Introduction

In this Section, the well-to-community alternatives described in Section 3 will be evaluated. The distribution system/metering components of the project have no alternatives.

In review, the alternatives and their non-physical variants are:

- C-1(a) Direct connection from the wellsite (east along Avenue 408 to a Road 130 alignment and north to Avenue 416, east on 416) to the community with an in-community storage tank.
- C-1(b) Connection through Orosi (along the same alignments) with a portion of the connection utilizing existing Orosi pipeline, and with an East Orosi/Orosi services contract for well, pipeline connection, the East Orosi distribution system and meter maintenance/operation, and meter reading.
- C-2(a) Connection through Orosi (west on 408, north on SR 63, east on Albert Avenue, north on Road 130, east on Avenue 416) with the same service agreement as Alternative C-1(b), with a backup water supply from Orosi, and availability of East Orosi well's excess capacity to Orosi.
- C-2(b) The same connection as Alternative C-2(a) with consolidation of the two Districts, thus effecting the service agreement-relationship plus OPUD billing, full financial responsibilities, and permanent responsibility for water supply backup.

In evaluating these alternatives, the following factors will be considered and discussed:

- Water supply reliability;
- Facilities construction costs;
- Operations and maintenance effectiveness;
- Water rates:
- Participant willingness; and
- Other benefits/constraints.

There will be no attempt to numerically "rate" the considered factors for each alternative. Such rating would be meaningless. Rather, the discussions will incorporate not only the physical comparisons and benefits of the alternatives, but their relative feasibility and costs based on available data.

4.2 - Ratings

4.2.1 - WATER SUPPLY RELIABILITY

Alternatives C-1(a) and C-1(b) include, in addition to a normal well-head electrical outing-related Diesel drive, short-term backup for well-to-community pipeline failure, an augmented short-term reliability, with an in-community storage tank with similar electrical outage-Diesel drive.

Alternative C-1(b) provides additional water supply reliability with Orosi operation and maintenance of the total East Orosi water system.

Alternatives C-2(a) and C-2(b) provide not only operation and maintenance reliability, but also the benefits of backup water supply from the OPUD water system. That backup supply replaces the water supply reliability of the in-East Orosi storage tank. Alternative C-2(b) offers the additional long-term reliability afforded by a continuing legal responsibility to provide water, from whatever source, to all residents within the OPUD.

4.2.2 - FACILITIES CONSTRUCTION COSTS

The construction costs of Alternative C-1 and Alternative C-2, and their variants, are, as estimated in Section 3, essentially the same. It is not known, however, what the costs of in-Orosi 'backup' facilities might be. Previous, reported, estimates of such costs have been in the order of \$2,000,000.

4.2.3 - OPERATIONS AND MAINTENANCE EFFECTIVENESS

Alternative C-1(a) assumes that East Orosi would be responsible, as at present, for its total water-system. The limited size and financial resources of the community, and thus of the EOCSD, have precluded and will preclude a staff-provided operation and maintenance program for the system. Although it is possible for the District to contract with a competent, properly registered, private firm for this purpose, community system size makes such services financially difficult.

Alternative C-1(b), and the C-2 alternatives, assume operations and maintenance by OPUD, integrating them with existing OPUD staffing responsibilities. Alternative C-2(b), with East Orosi system billing and management by OPUD, would assist in rendering such services on a cost-effective basis.

4.2.4 - WATER RATES

Current East Orosi water system services are financed by a flat rate of \$17.15 per month for each connected water user. The income from those rates is principally utilized for operation of the remaining existing well, for required water supply testing and reporting and for essential contractual legal, operations/maintenance and accounting services. Absent final design of new well production and storage facilities, and accurate information regarding

water usage, it is difficult to estimate what metered water rates will be under Alternatives C-1(a) or C-1(b). However, the 2015 audit (Appendix E) shows the water system operating at a loss; all state required testing and reporting is not currently being performed; the cost for contracted services must reflect both inflation-increases, and meter calibrating and reading, and additional pump/supply line to be maintained. Electrical energy costs will more than double because of increased well supply pipeline length and the standby electrical costs of two wells and a storage tank booster pump.

Reviewing the audit information, it appears that increased maintenance personnel costs and materials costs would be \$20,000, eliminating purchased water costs would save \$6,000 and funding the 2015 net loss would be \$12,000. Utilities costs increase for standby charges and electrical usage would be in the order of \$10,000. These direct cost changes would thus be approximately \$36,000. Depreciation and amortization indirect costs would increase, as a minimum, assuming 50 years average facilities life at 7%, in the order of \$10,000 per year. The total increase in required costs for operation and maintenance of the water systems would thus be approximately \$46,000 per year, approximately double those at present. Necessary water rates would thus be in the order of \$35 to \$40 per served customer per month.

It is evident that this severely disadvantaged community could afford little more than these rates; that it will be essential for State funding of the project capital facilities to be on a grant rather than a loan basis.

Meaningful rate calculations must await final project design and construction and the resulting ability to accurately calculate operating costs. However, a current rate study prepared by the Rural Community Assistance Corporation as a component of the November 23, 2016 Northern Tulare County Evaluation of Governance Structures and Affordability is included in Appendix I of this PER.

All OPUD water users are billed upon the basis of metered water usage. Details regarding this metered water rate system are not available for this report. If the OPUD provides, under contract, a backup water supply to East Orosi, it is probably legally required to charge out-of-PUD users at rates similar to those of in-District users (Alternative C-2(a)). Under Alternative C-2(b) such rates would be those of the combined District. It is assumed that, given the operational and maintenance effectiveness of the PUD, such rates may be lower than those obtainable under Alternative C-1(a) or C-1(b).

4.2.5 - Participant Willingness

With respect to key agencies whose viewpoints regarding the various alternatives have an impact on their selection or implementation:

• The EOCSD is willing to consider consolidation with OPUD if such consolidation is required to obtain State funding for this Project.

• The OPUD has expressed a desire to be helpful to East Orosi. However, it is opposed to consolidation of EOCSD and OPUD, Alternative C-2(b). It has therefore directed its staff not to furnish information which would, at this time, be helpful in evaluating the feasibility of Alternatives C-1(b) or C-2(a) and C-2(b).

The OPUD staff has, in the past, requested information regarding EOCSD's financial status and procedures in order to evaluate the impacts of EOCSD consolidation upon OPUD's resources. The staff has also noted that consolidation not only requires long-term assurance of drinking water-compliant water supply to East Orosi, but would also require assumption of East Orosi's wastewater system. OPUD has a history of not annexing adjacent properties and proposed developments to the District because of concerns regarding OPUD's ability to provide continuing wastewater facility capacity to such annexed developments.

- The State Water Resources Control Board Drinking Water Division has stated that, in accord with SWRCB/DWD policy, it will require consolidation of the two Districts, Alternative C-2(b).
- The Tulare County Local Agency Formation Commission (LAFCO), which legally approves Districts consolidation (Appendix G), has not been requested by either District to rule upon such action nor has it taken action to undertake a legally-required consolidation study precedent to Agency initiation of consolidation proceedings.

4.2.6 - OTHER BENEFITS/CONSTRAINTS

• System Management

Alternatives C-1(b) and C-2(a) reduce the water system management responsibilities of the EOCSD Board; Alternative C-2(b) eliminates that responsibility.

Local Control

Alternative C-2(b) eliminates the East Orosi community's local control over its water and sewer systems and water rates.

Funding

If the State maintains its position regarding District consolidation, Alternate C-2(b), and Orosi maintains its opposition to such consolidation, the Project would at best be delayed until agreement is reached or consolidation is effected. Funding availability, if delayed, may be problematic. No other funding source for the project is apparent.

SECTION 5 - ALTERNATIVES EVALUATION SUMMARY

The costs of all Alternatives are similar (except for unknown, and probably significant, OPUD costs). It is evident that the C-2 Alternatives are, given cooperation by the OPUD, feasible and desirable from water supply reliability and operations and maintenance standpoints. Available data does not permit accurate calculation of water rates. The intangible benefits or losses associated with local control cannot be evaluated in this report. It should be noted however, that Alternative C-2(b)'s transfer of legally-required long-range water supply reliability, and of responsibility for East Orosi financial management, rate-setting, and billing for water supply (and wastewater) to OPUD, may be a major benefit to East Orosi.

It is equally evident that potential in-OPUD funding impacts, and disagreement between the State and OPUD with respect to Alternative C-2(b), are critical issues with respect to Alternatives evaluation. It is beyond the purview of this report to evaluate these issues. Such evaluation remains the responsibility of the State, OPUD, LAFCO, and the community of East Orosi.

SECTION 6 - RECOMMENDATION

It is recommended that Alternatives C-2(a) or C-2(b) be implemented, and that Alternative C-2(b) be considered to be preferable from East Orosi's standpoint if the parties in interest (EOCSD, OPUD, the State, and LAFCO) can reach agreement.